

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 3, 4, 6, 15, 16, 22, 23, 25 and 34 and AMEND claims 1, 7, 8, 14, 17, 20, 26, 27, 32, 33, 37-39, 41 and 43 in accordance with the following:

1. (currently amended) A method of distributing information from at least one information distribution server to a plurality of terminals via a network, comprising:
 - receiving an information request generated by user selection of a link in an online hypertext document at a requesting terminal; and
 - determining whether conversion of requested information is necessary based on whether the requested information has a data format that can be utilized by the requesting terminal according to environment information ~~for~~ identifying an application executing on the requesting terminal; ~~and~~
 - converting at least a relevant part of the requested information into response information in a type and format that can be utilized by the requesting terminal based on the environment information for the requesting terminal, when it is determined that the conversion of the requested information is necessary;
 - determining whether to perform said converting by using the identification of the application to access an application function management table cross referencing a plurality of registered applications and functions provided by the registered applications, and by transmitting an inquiry to the requesting terminal when the application function management table is unable to determine whether a required function included in the requested information can be performed at the requesting terminal;
 - generating sample data for checking an application function on the requesting terminal based on the requested information;
 - sending the sample data to the requesting terminal; and
 - updating the application function management table depending on a response to the sample data from the requesting terminal.

2. (original) A method as recited in claim 1, wherein the environment information is obtained from an information request from the requesting terminal for the requested information.

Claims 3-4. (cancelled)

5. (currently amended) A method as recited in claim-41, wherein the identification of the application identifies a browser application, by name and version, that issued the information request.

6. (cancelled)

7. (currently amended) A method as recited in claim-61, wherein said transmitting includes transmitting the inquiry with the required function incorporated therein, such that the inquiry can be responded to only if the required function executes properly on the requesting terminal, and

wherein said determining is further based on whether a response to the inquiry is received from the requesting terminal.

8. (currently amended) A method as recited in claim-41, further comprising determining how to perform said converting by using the identification of the application to access a processing function management table cross referencing the plurality of registered applications with ways to convert information.

9. (original) A method as recited in claim 8, wherein the environment information is supplemented using a user identifier, corresponding to a user of the requesting terminal, to access a user management table cross referencing a plurality of user identifiers with at least one of applications available at user terminals and types of user terminals.

10. (original) A method as recited in claim 1, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal, by replacing the pointer with the content pointed to.

11. (original) A method as recited in claim 1, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal into a file name to be displayed.

12. (original) A method as recited in claim 1, wherein said converting includes converting a link of a type that the application does not support into at least one link of a type supported by the application.

13. (original) A method as recited in claim 12, wherein said converting converts at least one of extended links and both-way links into one-way links.

14. (currently amended) A system for distributing information to a plurality of terminals via a network, comprising:

a network interface unit, coupled to the network, to receive an information request generated by user selection of a link in an online hypertext document at a requesting terminal and to transmit response information to the requesting terminal;

an application function management unit determining whether conversion of requested information is necessary based on whether the requested information has a data format that can be utilized by the requesting terminal according to environment information for including identification of an application executing on the requesting terminal; and

a converting function unit, coupled to said network interface unit and said application function management unit, to convert at least a relevant part of the requested information into the response information in a type and format that can be utilized by the requesting terminal based on the environment information for the requesting terminal, when it is determined that the conversion of the requested information is necessary, said converting function unit including

an application function management unit to determine whether to convert the requested information by using the identification of the application to access an application function management table cross referencing a plurality of registered applications and functions provided by the registered applications, and

an inquiry function unit to generate an inquiry for the requesting terminal when the application function management table is unable to determine whether a required function included in the requested information can be performed at the requesting terminal, the inquiry incorporating the required function such that the inquiry can be responded to only if the required function executes properly on the requesting terminal, and said converting function unit

determining what conversion is necessary based on whether a response to the inquiry is received from the requesting terminal; and

an update unit, coupled to said network interface unit and said application function management unit, to generate sample data for checking an application function on the requesting terminal based on the requested information, to send the sample data to the requesting terminal, and to update the application function management table depending on a response to the sample data from the requesting terminal.

Claims 15-16 (cancelled)

17. (currently amended) A system as recited in claim 14, ~~wherein the environment information includes identification of an application executing on the requesting terminal, and~~ wherein said converting function unit further includes a processing request management unit to determine how to convert the requested information by using the identification of the application to access a processing function management table cross referencing the plurality of registered applications with ways to convert information.

18. (original) A system as recited in claim 14, wherein said converting function unit further includes a user management table cross referencing a plurality of user identifiers with at least one of applications available at user terminals and types of user terminals to identify the environment information.

19. (original) A system as recited in claim 14, wherein said converting function unit includes

a link content identification unit to convert a pointer that cannot be resolved by the requesting terminal into one of content pointed to by the pointer and a file name to be displayed; and

a link information forming unit to convert at least one of a both-way link and an extended link for the application that cannot process such a link into at least one one-way link.

20. (currently amended) A computer readable storage controlling a computer to perform a method comprising:

receiving an information request generated by user selection of a link in an online hypertext document at a requesting terminal;

determining whether conversion of requested information is necessary based on whether the requested information has a data format that can be utilized by the requesting terminal according to environment information ~~for identifying an application executing on the~~ requesting terminal; and

~~converting, in response to the information request from a requesting terminal,~~ at least a relevant part of the requested information into response information in a type and format that can be utilized by the requesting terminal based on the environment information for the requesting terminal, when it is determined that the conversion of the requested information is necessary;

determining whether to perform said converting by using the identification of the application to access an application function management table cross referencing a plurality of registered applications and functions provided by the registered applications, and by transmitting an inquiry to the requesting terminal when the application function management table is unable to determine whether a required function included in the requested information can be performed at the requesting terminal;

generating sample data for checking an application function on the requesting terminal based on the requested information;

sending the sample data to the requesting terminal; and

updating the application function management table depending on a response to the sample data from the requesting terminal.

21. (original) A computer readable storage as recited in claim 20, wherein the environment information is obtained from an information request from the requesting terminal for the requested information.

Claims 22-23 (cancelled)

24. (original) A computer readable storage as recited in claim 23, wherein the identification of the application identifies a browser application, by name and version, that issued the information request.

25. (cancelled)

26. (currently amended) A computer readable storage as recited in claim-25 20, wherein said transmitting includes transmitting the inquiry with the required function incorporated therein, such that the inquiry can be responded to only if the required function executes properly on the requesting terminal, and wherein said determining is further based on whether a response to the inquiry is received from the requesting terminal.

27. (currently amended) A computer readable storage as recited in claim-23 20, wherein said method further comprises determining how to perform said converting by using the identification of the application to access a processing function management table cross referencing the plurality of registered applications with ways to convert information.

28. (original) A computer readable storage as recited in claim 27, wherein the environment information is supplemented using a user identifier, corresponding to a user of the requesting terminal, to access a user management table cross referencing a plurality of user identifiers with at least one of applications available at user terminals and types of user terminals.

29. (original) A computer readable storage as recited in claim 20, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal, by replacing the pointer with the content pointed to.

30. (original) A computer readable storage as recited in claim 20, wherein said converting includes converting a pointer that cannot be resolved by the requesting terminal into a file name to be displayed.

31. (original) A computer readable storage as recited in claim 20, wherein said converting includes converting at least one of a both-way link and an extend link for the application that cannot process such a link into at least one one-way link.

32. (currently amended) An information distribution method used by an information distribution service to receive a request for information distribution generated by user selection of a link in an online hypertext document at a terminal connected via a network and to transmit requested information to the terminal, comprising:

verifying functions of an application used by the terminal that sent the request for information distribution upon receipt thereof;

determining whether the functions of the application can process requested information by reference to an application function management table cross referencing registered applications and functions provided by the registered applications, and by transmitting an inquiry to the terminal when the application function management table is unable to determine whether a required function included in the requested information can be performed at the terminal; and

converting, when it is determined that the process is impossible, at least a relevant part of the requested information into a type and format which may be processed by the application prior to transmission to the terminal; and

updating the application function management table depending on a response to sample data generated and sent to the terminal to check an application function on the terminal based on the requested information.

33. (currently amended) An information distribution apparatus of an information distribution service to receive requests for information distribution generated by user selection of a link in an online hypertext document at terminals connected thereto via a network and to transmit requested information to the terminals, comprising:

a conversion determination table provided for management of applications which may be operated on the terminal and corresponding functions to be processed by the applications;

an application identification unit to identify the application used by a requesting terminal when an information request is accepted from the requesting terminal;

a conversion determination unit, coupled to said conversion determination table and said application identification unit, to determine whether the application can process the requested information by referring to said conversion determination table;

an inquiry function unit to inquire about functions of the application used by the requesting terminal when the application used by the requesting terminal is not registered in said conversion determination table;

a converting unit, coupled to said conversion determination unit, to convert at least a relevant part of the requested information into converted information, different in at least one of type and format, that can be processed by the requesting terminal when it is determined that the application cannot process the requested information; and

a sample data generation unit to generate sample data for checking an application function on the requesting terminal based on the requested information;

a transmission unit, coupled to said inquiry function unit, said converting unit and said sample data generation unit, to transmit the converted information to the requesting terminal and to transmit the sample data to the requesting terminal; and

an update unit, coupled to said transmission unit, to update the conversion determination table depending on a response to the sample data from the requesting terminal.

34. (cancelled)

35. (original) An information distribution apparatus as recited in claim 33, wherein said converting unit converts, when the requested information includes content which cannot be processed by the requesting terminal, only that portion of the content which cannot be processed, depending on a converting system registered in said conversion determination table.

36. (original) An information distribution apparatus as recited in claim 35, wherein a remaining portion of the content not processed by said converting unit is a link function or pointer function of XML.

37. (currently amended) A terminal apparatus used to receive an information distribution service that responds to an information distribution request from said terminal apparatus connected via a network by transmitting requested information to said terminal apparatus, comprising:

a requesting unit, coupled to the network, to generate the information distribution request in response to user selection of a link in an online hypertext document, including environment information about at least one of an application used in said terminal apparatus and a function of the application, so that the information distribution service can determine whether conversion of requested information is necessary based on whether the requested information has a data format that can be utilized by the terminal apparatus based on the environment information and convert at least a relevant part of the requested information into response information in a type and format that can be utilized by said terminal apparatus based on the environment information, when it is determined that the conversion of the requested information is necessary;

an inquiry response unit, coupled to the network, to respond to an inquiry from the information distribution service regarding whether a required function can be performed by said terminal apparatus when the information distribution service is unable to determine whether conversion of the requested information is necessary based on the environment information; and

a sample data execution unit, coupled to the network, to execute sample data received from the information distribution service to test the function of the application and respond to the information distribution service with results of the test.

38. (currently amended) A terminal used to receive an information distribution service that responds to an information distribution request from said terminal connected via a network by transmitting requested information to said terminal, comprising:

a computing unit, coupled to said network, which uses browser software on connection to the information distribution service to transmit, together with the information distribution request, environment information about at least one of application software which may be operated in cooperation with the browser software and application functions, so that the information distribution service can determine whether conversion of requested information is necessary based on whether the requested information has a data format that can be utilized by the terminal apparatus based on the environment information and convert at least a relevant part of the requested information into response information in a type and format that can be utilized by said terminal based on the environment information, when it is determined that the conversion of the requested information is necessary, said computing unit responding to an inquiry from the information distribution service regarding whether a required function can be performed by said terminal when the information distribution service is unable to determine whether conversion of the requested information is necessary based on the environment information, and executing sample data received from the information distribution service to test the application functions and respond to the information distribution service with results of the test.

39. (currently amended) A storage medium storing a program controlling a computer to provide an information distribution service to receive an information distribution request from a terminal connected via a network and to transmit requested information to the terminal, by performing a method comprising:

storing a conversion determination table provided for management of applications which may be operated on the terminal and corresponding functions to be processed with such applications;

identifying an application used by the terminal when the information distribution request, generated by user selection of a link in an online hypertext document at the terminal is received from the terminal;

determining whether a function of an identified application can process the requested information by referring to the conversion determination table;

inquiring about functions of the application used by the terminal when the application used by the terminal is not registered in the conversion determination table;

converting at least a relevant part of the requested information into converted information, different in at least one of type and format, that can be processed by the terminal when it is determined that processing of the requested information by the terminal is impossible; and

generating sample data for checking an application function on the terminal based on the requested information;

transmitting the converted information to the terminal and the sample data to the terminal; and

updating the conversion determination table depending on a response to the sample data from the terminal.

40. (original) A storage medium as recited in claim 39, further comprising inquiring the terminal about functions of an application used by the terminal when the application used by the terminal does not exist in the conversion determination table.

41. (currently amended) A storage medium storing a program for controlling a computer to perform an information distribution service by receiving an information distribution request from a terminal connected via a network and transmitting requested information to the terminal, in a method comprising:

registering a conversion determination table provided for management of an application which can be processed on the terminal and corresponding functions which can be processed by the application;

identifying the application used in the terminal when the information distribution request, generated by user selection of a link in an online hypertext document at the terminal is received from the terminal;

inquiring about functions of the application used by the terminal when the application used by the terminal is not registered in the conversion determination table;

determining whether the requested information can be processed by the application by referring to the conversion determination table;

converting, when it is determined that the requested information cannot be processed by the application, at least a relevant part of the requested information into converted information, different in at least one of type and format, which can be processed by the terminal; and

generating sample data for checking an application function on the terminal based on the requested information;

transmitting the converted information to the terminal and the sample data to the terminal; and

updating the conversion determination table depending on a response to the sample data from the terminal.

42. (original) A storage medium as recited in claim 41, further comprising inquiring the function of application used for the terminal when the application used in said terminal does not exist in said conversion determination table.

43. (currently amended) A method of distributing information from at least one information distribution server to terminals via a network, comprising:

receiving an information request including environment information for a requesting terminal identifying at least one of a plurality of data formats in which the at least one information distribution server can output information and identifying an application executing on the requesting terminal;

determining whether conversion of information requested by the information request is necessary based on whether the requested information has a data format that can be utilized by the requesting terminal according to the environment information for the requesting terminal; and

inquiring about functions of the application used by the terminal when the application used by the requesting terminal is not registered in the conversion determination table;

converting at least part of the information requested by the information request from a first type and format in which the information is stored on the at least one information distribution server into a second type and format that can be utilized by the requesting terminal based on the environment information for the requesting terminal, when it is determined that the conversion of the requested information is necessary;

generating sample data for checking an application function on the requesting terminal based on the requested information;

transmitting the converted information to the requesting terminal and the sample data to the requesting terminal; and

updating the conversion determination table depending on a response to the sample data from the requesting terminal.